

REMARKS

This amendment is in response to a first Office action (Paper No. 20041112) mailed November 17, 2004. Upon entry of this amendment, claims 1 through 9 and 11 through 21 will be pending. Applicant has amended claims 1, 3, 15 and 16, canceled claim 10 without prejudice or disclaimer as to its subject matter and newly added claims 19 through 21 by this amendment.

Drawing Objections

In the Office action, the Examiner objected to the drawings for not showing the unraveling of the thread. Applicant has amended FIG. 5 and the accompanying portion of the specification (paragraph 0027) to show the unraveling of the thread by this amendment.

35 U.S.C. 112, second paragraph rejections

In the first Office action, the Examiner rejected claims 1-18 under 35 U.S.C. 112, second paragraph for numerous reasons. Applicant will now address each one of these rejections.

In the Office action, the Examiner objected to the term "Kraft paper" in the claims because of the use of a trademark in the claims. Applicant has amended claims 3 and 16 to remove the term "Kraft paper" and to replace it with a description of what Kraft paper is.

In the Office action, the Examiner objected to 300D/3 and 500D/3 in the claims. Applicant has amended claims 1 and 15 to describe that "D" means denier which is an indication

of mass per unit weight of the thread.

In the Office action, the Examiner stated that it was unclear as to what strip was being folded over in claim 1. Applicant submits that the strip is analogous to strip 66 of FIG. 1, but applied to the box of FIG. 5 where sewn thread and an adhesive and a tab are provided.

In the Office action, the Examiner indicated that a stack of paper was unclear and that a stack is interpreted as a pile of paper. Then the Examiner states that the stack is a blank. Applicant disagrees. Applicant submits that a stack of paper is more than one sheet of paper. Applicant builds the packing crate by attaching one stack to another using adhesive and sewn thread. Therefore, Applicant disagrees with the Examiner's assertion that a mere blank can read on a stack of paper.

Prior Art Rejections using USP 3370777 to Levi

In the Office action, the Examiner has rejected claims 11, 16, 17 and 18 under 35 U.S.C. 102 (b) as being anticipated by Levi '777. Applicant has the following comments.

In the Office action, the Examiner states that Levi '777 teaches a plurality of sheets of papers in FIG. 2. Applicant disagrees. Applicant submits that a blank does not read on a sheets of paper or a stack of paper. This is because the blank is actually one piece, not a plurality of pieces, as is a stack.

In the Office action, the Examiner says that Levi '777 teaches a plurality of sheets of papers being joined by folding a strip and then being sewn by thread. However, this is not what Applicant is claiming. Applicant is claiming one stack of papers being joined to another stack of papers by the folding and the sewing. Applicant is not claiming that a stack of papers or a stack of sheets are joined together by the thread.

Regarding claims 16 and 17, Applicant claims that the stacks of paper as being Kraft paper and corrugated paper respectively. In the Office action, the Examiner states that both of these are anticipated by Levi '777. Applicant disagrees. Applicant cannot find any teaching in Levi '777 that the blank is actually made out of corrugated or Kraft paper.

In the Office action, the Examiner rejected claims 1-9 and 12-14 under 35 U.S.C. 103 (a) using Levi '777 in view of USP 5,545,844 to Plummer III. The Examiner relies on Plummer '844 for a teaching of the use of nylon threads. However, the Examiner has failed to supply a motivation as to why one would turn to Plummer '844 to fill in for the deficiencies of Levi '777 as required by MPEP 2143.01.

Applicant also submits that one having ordinary skill in the art would not turn to Plummer '844 to fill in for the deficiencies of Levi '777. This is because Levi '777 pertains to a paperboard container for mailing a book while Plummer pertains to an electrical shielding chamber with metal on the walls to shield out EMI and protect electronic devices. The chamber

in Plummer '844 is made out of completely different materials and is used for an entirely different purpose than the container in Levi '777. The chamber in Plummer '844 is collapsible, is not meant to transport an item, is designed to be reusable and is used to prevent electromagnetic noise of one device from interfering with another electrical device. Because of these vast differences in the purposes and construction of Levi '777 and Plummer '844, Applicant submits that it was inappropriate to use Plummer '844 to fill in for the deficiencies of Levi '777.

Regarding claims 1 and 13, Applicant claims 50 to 80 stitches per meter. In the Office action, the Examiner dismisses Applicant's limitation that there is 50-80 stitches per meter as obvious to one of ordinary skill in the art. Applicant disagrees. First of all, there is no teaching of a sewn box made from Kraft paper or a heavy reinforced building paper in the applied prior art, no teaching of the type of thread of polyamide, polyester or polypropylene with a fineness of 300D/3 to 500D/3 and there is no teaching in the applied prior art of combining the Kraft paper or corrugation with this thread. Further, there is no evidence presented by the Examiner showing that the inventive thought process as outlined in paragraph 0026 in Applicant's specification. In this paragraph, Applicant reasons that given the construction of the crate and the thread used, if more than 80 stitches per meter are used, the paper that makes up the box will be torn. This is never contemplated by the applied prior art. Further, the materials used and the combination of materials used are not contemplated by the applied prior art. Thus, Applicant objects to the Examiner's assertion that the 50 to 80 stitches per meter is obvious to one of ordinary skill in the

art.

Regarding claims 1 and 15, Applicant claims that the thread has a thickness between 300D/3 and 500D/3. In the Office action, the Examiner dismisses Applicant's limitation that the nylon thread used is 300D/3 to 500D/3 as being obvious to one of ordinary skill in the art. Applicant disagrees. Applicant reasons out why and how Applicant got to this range in paragraph 0025 of Applicant's specification. Applicant cannot find any analogous reasoning in the applied prior art.

Furthermore, Applicant's reasoning in paragraph 0025 is based on the combination of materials used. However in the applied prior art, the same combination of materials is not used. Thus, it can not be obvious to one of ordinary skill in the art that the thread be between 300D/3 and 500D/3.

In paragraph 0025, Applicant reasons that if the thread is too thick, the needle used to sew the thread will make a very large hole which will allow too much air and moisture to enter. If a too thin thread is used, the thread will tear the paper used to make the crate. Applicant cannot find any evidence of such an analogous reasoning in the applied prior art. Because this thought process has not been contemplated before, Applicant submits that the thread range of 300D/3 to 500D/3 is not obvious to one having ordinary skill in the art.

In claims 6 and 12, Applicant claims the use of a synthetic resin as the adhesive. In the Office action, the Examiner dismisses this limitation as being obvious to one having ordinary skill in the art. Applicant disagrees.

Applicant submits that none of the applied prior art, either taken singly or in combination, teaches Applicant's novel concept of using the adhesive to fill into the holes created by the sewing to seal the holes bearing the thread to prevent moisture and air from entering the crate while simultaneously providing adhesive properties. If this concept has not been contemplated by the applied prior art, Applicant submits that Applicant's selection of the material used to accomplish the invention cannot be considered to be obvious.

Regarding claim 8, Applicant claims 1) the sewing being done after application of the adhesive and 2) the sewing being done before the adhesive fully dries. In the Office action, in paragraph 4 on page 4, the Examiner only addresses (2) above without addressing or examining the feature that the sewing is done after application of the adhesive. This is a critical aspect of Applicant's claimed invention and the Examiner has ignored it in the Office action.

In the Office action, the Examiner states that feature (2) of claim 8, the sewing being done before the adhesive fully dries is obvious to one having ordinary skill in the art because it is easier to sew then. Applicant disagrees. Applicant submits that there is no such teaching presented that it is preferable to sew before the adhesive dries. This assertion on the part of the

Examiner is mere hindsight reconstruction of Applicant's invention on the part of the Examiner.

It is kindly noted that the Examiner, in paragraph 7 at the top of Page 5 of the Office action in another rejection of claim 8 provided a motivation for sewing after the adhesive fully dries. The Examiner states, "it would have been obvious to one of ordinary skill in the art to provide sewing after the adhesive fully dries to keep the adhesive from spreading, and to sew the various pieces easily." Thus, Applicant refutes the Examiner's reasoning that it is obvious to sew before the adhesive dries because one would want to sew after the adhesive dries to keep the adhesive from spreading and to sew more easily. In other words, it is obvious to the Examiner to take both sides, which is self-contradictory.

Regarding claim 4, Applicant claims the tab and the unraveling feature. In the office action, the Examiner turns to USP 2933232 to Bugnone for a teaching of the tab and then concludes that the tab of Bugnone '232 can be used in Levi '777. Applicant disagrees. Applicant submits that the carton in Bugone '232 is much bigger than the book mailer in Levi '777. If the tab and the unraveling feature of Bugone '232 were to be used in Levi '777, the resultant container would work poorly as the book mailer and the contents in Levi '777 is much lighter than that of Bugone '232. Bugone '232 relies on the fact that there would be a large counter weight to counter the force of pulling open the stitching. This large counterweight would not be present in Levi '777 and thus would not work very well at all if applied to the book mailer of Levi '777.

Prior Art Rejections using USP 1449467 to Walter

In the Office action, the Examiner rejected claims 11, 16, 17 and 18 under 35 U.S.C. 102 (b) using Walter '467. Applicant has the following comments.

In claim 11, Applicant claims that stacks of paper are attached to one another by sewn thread. Applicant cannot find an analogy in Walter '467 for the stacks of paper. Instead, Walter '467 teaches that each blank is made out of fiber or paper board as on page 2, line 6. Applicant submits that fiber or a paper board cannot read on a stack of paper because a stack of paper infers more than one paper to the stack. Applicant is essentially claiming more than one paper is sewn to another more than one paper. This is not present in Walter '467.

Similarly, in claims 16 and 17, Applicant claims the use of Kraft paper and corrugated paper. Applicant cannot find such a similar feature in Walter '467.

In the Office action, the Examiner rejected claims 5-8, 10 and 12 under 35 U.S.C. 103 (a) using Walter '467 and USP 2109716 to Annen. The Examiner states that Annen '716 teaches use of an adhesive with another fastening means. The Examiner then states that the combination of Walter '467 and Annen '716 results in Applicant's invention. Applicant disagrees.

Annen '716 pertains to a cylindrical ice cream container. One piece is attached to itself to form the cylindrical shape. Annen '716 uses a combination of staples and adhesive. Applicant

submits that if Walter were modified according to Annen '716, staples and not thread would be used. However, this is not Applicant's invention. In fact, Applicant teaches away from using the staples of Annen '716 because they rust and they cannot be easily pried open.

Annen '716 proposes using adhesive in addition to staples for a completely different reason than Applicant. Annen '716 uses both staples and adhesive to provide more strength to the container as in page 1, column 2, lines 5-10 of Annen '716. In Applicant's invention, the adhesive is used in addition to thread not only to provide more strength, but to seal the holes formed during the sewing to prevent air and moisture from entering the crate and to not rust and to provide for easy opening. Annen '716 does not contemplate any of these.

Unlike thread, staples do not need to be formed continuously along a boundary. As seen in FIG. 2 of Annen '716, just 5 staples are formed along the edge with large gaps between, where in Applicant's invention, 50 to 80 stitches per meter are formed along the boundary. This is another reason why the combination of staples and adhesive cannot read on the combination of stitches and adhesive. Because Annen '716 teaches only 5 staples along an entire length of an ice cream container and Applicant uses 50 to 80 stitches per meter along edges of a crate, Applicant submits that '467 modified according to Annen '716 would teach away from Applicant's claimed invention.

Annen '716 teaches the combined use of staples and adhesive to attach one element to

itself to form a cylinder. In Applicant's claimed invention, Applicant is attaching one stack of paper to another stack of paper. This is another reason why modifying Walter '467 according to Annen '716 teaches away from Applicant's claimed invention.

Applicant further submits that if the box of Walter '467 were modified according to the staples and adhesive of Annen '716, it would be impossible to open using the tear string as in Applicant's invention. This is yet another reason why modifying Walter '467 according to Annen '716 could not result in Applicant's claimed invention.

Regarding the synthetic resin feature, the Examiner again states that using a synthetic resin for an adhesive would be obvious to one of ordinary skill in the art to provide the desired adhesion for the container. Applicant disagrees. Applicant submits that unlike Annen '716, Applicant's choice of adhesive is also based on the ability to fill the sewing holes and to prevent moisture and air from entering the packing crate. These concepts and considerations are not discussed or contemplated by either Walter '467 or Annen '716.

Regarding claim 8 in the rejection using Walter '467 and Annen '716, the Examiner states that "it would have been obvious to one of ordinary skill in the art to provide sewing after the adhesive fully dries to keep the adhesive from spreading, and to sew the various pieces easily." Applicant disagrees. Applicant submits that this is not what Applicant is claiming in claim 8. Applicant is claiming that the sewing is done **before** the adhesive fully dries, not after.

In paragraph 8 of the Office action, the Examiner rejects claims 1, 2 and 13-16 under 35 U.S.C. 103 (a) using Walter '467 in combination with Plummer '844. The Examiner relies on Plummer '844 for a teaching of the use of nylon threads.

Applicant again submits that one having ordinary skill in the art would not turn to Plummer '844 to fill in for the deficiencies of Walter '467. This is because Walter '467 pertains to a paperboard container while Plummer '844 pertains to an electrical shielding chamber with metal on the walls to shield out EMI and protect electronic devices. The chamber in Plummer '844 is made out of completely different materials, is used for an entirely different purpose than the container in Walter '467. The chamber in Plummer '844 is collapsible, is not meant to transport an item and is designed to be reusable. Because of these vast differences in the purposes and construction of Walter '467 and Plummer '844, Applicant submits that it was inappropriate to use Plummer '844 to fill in for the deficiencies of Walter '467.

Conclusion

Applicant claims a structure for a packing crate and a method of making. Thread and adhesion is used to sew one stack of paper to another stack of paper. Adhesive material also serves to fill the holes generated in the sewing to prevent moisture and air from entering. Also, it can be opened easily. The Examiner has failed to show why this inventive concept is unpatentable over the applied prior art. Further, this concept is not present in any one or combination of the applied prior art.

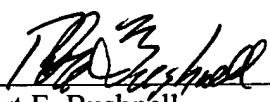
Newly Added Claims

Applicant is newly adding claims 19-21 by this amendment to claim features not present in the applied prior art. These include the presence of adhesive material in the thread holes and the fact that the sewing and the adhesive are coextensive and continuous along edges of the packing crate. Entry of and favorable examination of these claims is respectfully requested.

A fee of \$60.00 is incurred by filing of a petition for a one month extension of time for a small entity, set to expire on 17 March 2005. Applicant's check drawn to the order of Commissioner accompanies this Amendment. Should the check become lost, be deficient in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

In view of the above, all claims are submitted to be allowable and this application is believed to be in condition to be passed to issue. Reconsideration of the rejections is requested. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

Respectfully submitted,


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